

REMARKS

INTRODUCTION:

In accordance with the foregoing, the specification and the title have been amended to improved form and to address the concerns of the Examiner.

Claims 6, 7, 10, 11, 15, and 19-36 have been withdrawn in response to the Examiner's making final the election requirement. On page 3, item 3, of the Office Action, the Examiner requests cancellation of the non-elected claims. However, in order to expedite prosecution and as ones of the non-elected claims depend from generic, linking claims, the claims to the non-elected species are withdrawn for later consideration consistent with MPEP 809.04.

Claims 1, 2, 8, and 37 have been amended to clarify existing features with narrowing the scope of the claims. FIG. 3 has been amended to show the signal processing portion 30 which detects a track error signal (TES) and a second signal processing portion 40 to generate a track cross signal (TCS) in order to better interrelate FIG. 3 with FIGs. 5 through 7 as described in paragraphs 0017, 0018, 0023, and 0026-0029.

No new matter is being presented, and approval and entry of the foregoing amendments are respectfully requested.

Claims 1-39 are pending, and claims 1-5, 8, 9, 12-14, 16-18, and 37-39 are under consideration. Reconsideration is requested.

OBVIOUSNESS TYPE DOUBLE PATENTING REJECTION:

On pages 3-4 of the Office Action, the Examiner provisionally rejects claims 1, 8, and 37 under the doctrine of obviousness-type double patenting in view of claim 1 of copending application 09/817,754. However, as there is no indication that claims 1, 8, and 37 of the instant application or claim 1 of copending application 09/817,754 are in condition for allowance, and as the rejection is provisional in nature, it is respectfully submitted that the rejection is premature and that the applicants be allowed to address any obviousness-type double patenting rejections when the claims of one of both the applications are in condition for allowance and the rejection is no longer provisional as per MPEP 804(I)(B).

OBJECTIONS TO THE DRAWINGS:

In the Office Action at page 4, the drawings were objected to. In view of the accompanying separate Letter to the Examiner Requesting Approval of Changes to the Drawings, corrections to FIG. 3 has been requested in order to more clearly show an example of

an optical recording and/or reproducing apparatus using the first and second signal processing portions 30 and 40 or 50 shown in FIGs. 5 through 7. Therefore, the outstanding drawing objections should be resolved.

Reconsideration and withdrawal of the outstanding objections to the drawings are respectfully requested.

OBJECTION TO THE TITLE:

In the Office Action at page 5, the title was objected to as not being descriptive. While applicants respectfully submit that the amended title reflects an aspect of the invention and does not serve as a limitation of the full scope of the invention, in view of the proposed amended title set forth above, the outstanding objection to the title should be resolved.

OBJECTION TO THE SPECIFICATION:

On page 5 of the Office Action, the Examiner requests an update to a cross-referenced application information to a related application contained in the specification. It is noted that the status is current of the application set forth in paragraph 0001 is current. Therefore, it is respectfully submitted that no update is needed.

REJECTION UNDER 35 U.S.C. §112:

In the Office Action at page 6, the Examiner rejects claims 2-5 under 35 U.S.C. §112, first and second paragraphs. This rejection is respectfully traversed and reconsideration is requested.

In rejecting claims 2-5, the Examiner asserts that the specification does not describe the second signal processing portion generating the seek direction detecting signal. By way of review, the specification at paragraphs 0026, 0028, and 0029 teaches embodiments in which the seek direction detecting signal is produced by a second signal processing portion using a phase difference between the track error signal (TES) and the track cross signal (TCS). In order to more clearly describe the interrelationship between the TES and the TCS for the embodiments of the invention, the specification and FIG. 3 have been amended as indicated. As such, it is respectfully submitted that claims 2-5 are compliant with the requirements of 35 U.S.C. §112, first paragraph.

Additionally, on page 6 of the Office Action, the Examiner rejects claims 2-5 as the Examiner believes that the claim 2 recites that only the recited second signals are being used to obtain the seek direction detecting signal, whereas claim 1 recites that the track error signal is

used to calculate the seek direction detecting signal. As a point of clarification, claim 2 does not recite that the track error signal is not used to obtain the seek direction detecting signal such that claim 2 is consistent with claim 1. However, in order to clarify an existing limitation without narrowing the scope of the invention, claim 2 has been amended to recite the track error signal. As such, it is respectfully submitted that claims 2-5 remain compliant with 35 U.S.C. §112, second paragraph.

REJECTION UNDER 35 U.S.C. §103:

In the Office Action at pages 6-9, the Examiner rejects claims 1, 8, 9, 12-14, 16, 17, and 37-39 under 35 U.S.C. §103 in view of Kitamura et al. (U.S. Patent No. 5,986,996) and the device described on pages 1 through 3 in relation to FIGs. 1 and 2 of the instant application (hereinafter referred to as a "Other Device.") The rejection is respectfully traversed and reconsideration is requested.

Among other features, the Examiner asserts on page 7 of the Office Action that the hologram 6 of Kitamura et al. discloses the light dividing unit as recited in claim 1. By way of review, claim 1 recites, among other features, "a light dividing unit to divide an incident light beam into a main beam and a sub-beam to form ... a main beam spot and a sub-beam spot having an optical aberration," where "a direction of the optical aberration is ... in a radial direction of the optical disk." In order to clarify the invention using the existing limitations, claim 1 has been amended to recite that the beam spots are formed on the optical disk.

In contrast, Kitamura et al. teaches a laser beam 7 passing through a hologram 6 and is focused by an objective lens 5 on an optical disk 1. The reflected laser beam 7 passes through the objective lens 5 to be diffracted at the hologram 6 into ± 1 order beams. The ± 1 order beams are focused onto the photo-detector array 4 such that an astigmatic aberration is generated. (Col. 9, lines 40-57, col. 11, lines 6-29; FIG. 1 of Kitamura et al.) However, Kitamura et al. does not suggest that the hologram 6 forms the aberration on the optical disk 1, or that there is an advantage in so doing instead of forming the aberration on the photo-detector array 4.

Further, the Other Device is not relied upon as disclosing and does not disclose an aberration formed on an optical disk 1 as shown in FIG. 1 of the instant application. As such, it is respectfully submitted that the combination of Kitamura et al. and the Other Device does not disclose or suggest, among other features, "a light dividing unit to divide an incident light beam into a main beam and a sub-beam to form on an optical disk a main beam spot and a sub-beam spot having an optical aberration, the main beam and the sub-beam being focused in a track

direction of the optical disk, the light dividing unit being disposed so that a direction of the optical aberration is formed on the optical disk in a radial direction of the optical disk" as recited in claim 1.

For similar reasons, it is respectfully submitted that the combination of Kitamura et al. and the Other Device does not disclose or suggest the invention as recited in claims 8 and 37.

Additionally, on page 9 of the Office Action, the Examiner asserts that stripped shaped photo-diodes 13c, 13f of Kitamura et al. correspond to the inner light receiving portions recited in claim 13. As a point of clarification, claim 13 recites, among other features, "inner and outer light receiving portions aligned along a radial direction of the optical disk," with "the inner light receiving portions being disposed between the outer light receiving portions." As shown in FIG. 1 of Kitamura et al., the photo-diodes 13c, 13f are disposed in a row along a tangential direction of the track of the optical disk 1. Photo-diodes 13e and 13d are disposed between the photo-diodes 13c, 13f. (Col. 11, lines 8-19; FIG. 1 of Kitamura et al.) Since the Other Device is not relied upon and does not disclose such a feature, it is respectfully submitted that the combination of Kitamura et al. and the Other Device does not disclose or suggest the invention of claim 13.

Claims 9, 12, 14, 16, 17, 38, and 39 are deemed patentable due at least to their depending from corresponding claims 8 and 37.

On page 10 of the Office Action, the Examiner rejects claim 18 under 35 U.S.C. §103 in view of Kitamura et al., the Other Device, and Lee et al. (U.S. Patent No. 5,706,263). The rejection is respectfully traversed and reconsideration is requested.

Even assuming arguendo that the Examiner is correct as to the features of Lee et al. and that the combination is correct, it is respectfully submitted that the Examiner does not rely upon Lee et al. as otherwise curing the above-noted deficiency of Kitamura et al. and the Other Device as applied to claims 8 and 13, from which claim 18 depends. As such, it is respectfully submitted that the combination of Kitamura et al., the Other Device, and Lee et al. does not disclose or suggest the invention recited in claim 18 due at least to the combination not disclosing or suggesting the invention recited in claim 8 or 13.

CONCLUSION:

In accordance with the foregoing, it is respectfully submitted that all outstanding objections and rejections have been overcome and/or rendered moot. And further, it is respectfully submitted that all pending claims patentably distinguish over the prior art. Thus, there being no further outstanding objections or rejections, the application is submitted as being

in condition for allowance which action is earnestly solicited.

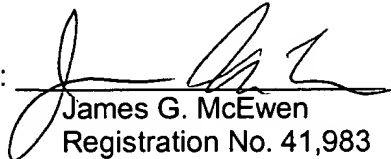
If the Examiner has any remaining issues to be addressed, it is believed that prosecution can be expedited by the Examiner contacting the undersigned attorney for a telephone interview to discuss resolution of such issues.

If there are any additional fees associated with the filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

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Date: March 26, 2004